UCF Degree Programs

Mathematics Education (B.S.)

College of Education and Human Performance

School of Teaching, Learning, and Leadership,

Education Building, Room: 209

http://education.ucf.edu/mathed

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Dr. Janet Andreason, ED 123Q, Janet.Andreason@ucf.edu

The Mathematics Education B.S. program offers students the option of two tracks: Mathematics Education - Education Track and Mathematics Education - Lifelong Learning Track (non-certification). The Education Track is appropriate for students interested in opportunities for employment with formal, 6-12 schools that require certification. The Lifelong Learning Track is appropriate for students seeking opportunities outside formal, K-12 schools that do not require certification.

Admission Requirements

- Complete the University General Education requirements or its equivalent, i.e. an AA degree from a Florida College System or State University System institution.
- Complete all Education Common Program Prerequisite courses with a minimum letter grade of “C-” (1.75) or better
- Meet the Gordon Rule Requirement.
- Meet the foreign language admission requirement.
- Have a minimum 2.5 overall GPA
- Education Track: Pass all four parts of the General Knowledge Test (no alternatives or waivers are accepted). The Lifelong Learning Track is a non-certification program and does not require the General Knowledge Test.

Degree Requirements

- Students should see an advisor prior to registering for classes.
- The courses designated in 1. (General Education) and 2. (Education Common Program Prerequisites) should be completed prior to admission to the major and upper division education courses.
- The Education Track is a state-approved, initial teacher preparation program designed in compliance with Florida Statutes and State Board of Education Rule 6A-5.066. Degree requirements are subject to change based on state mandates.

1. UCF General Education Program (GEP) (37 hrs)

A: Communication Foundations (9 hrs)
- Required ENC 1101 Composition I 3 hrs
- Required ENC 1102 Composition II 3 hrs
- Prefer SPC 1608 Fundamentals of Oral Communication 3 hrs

B: Cultural & Historical Foundations (9 hrs)
- General Education Program elective from section B1 to meet Gordon Rule Requirement 3 hrs

Select 1:
- Prefer MUL 2010 Enjoyment of Music 3 hrs
- Prefer THE 2000 Theatre Survey or 3 hrs
- Prefer PHI 2010 Introduction to Philosophy 3 hrs
- General Education Program elective: Prefer a second course from GEP section B1 3 hrs

C: Mathematical Foundations (7 hrs)
- Required MAC 2311C Calculus with Analytic Geometry I 4 hrs
- Required STA 2023 Statistical Methods I 3 hrs

D: Social Foundations (6 hrs)
- Prefer POS 2041 American National Government 3 hrs
- Prefer PSY 2012 General Psychology 3 hrs

E: Science Foundations (6 hrs)
- Prefer PSC 1121 Physical Science 3 hrs

Select 1:
- Prefer ANT 2511 The Human Species or 3 hrs
- Prefer BSC 1005 Biological Principles 3 hrs

2. Common Program Prerequisites (CPP) (17 hrs)

- See “Common Prerequisites” in the Transfer and Transitions Services section for more information.

- EDF 2005 Introduction to the Teaching Profession 3 hrs
- EDF 2085 Introduction to Diversity for Educators 3 hrs
- EME 2040 Introduction to Technology for Educators 3 hrs
- MAC 2311C Calculus with Analytic Geometry I GEP
- MAC 2312 Calculus with Analytic Geometry II 4 hrs
- MAC 2313 Calculus with Analytic Geometry III 4 hrs

1 In addition to this course, a minimum of 6 hours with an international or diversity focus is required. The foreign language admission requirement may be used to meet this requirement.

3. Core Requirements: Basic Level (6 hrs)

- Education Track requires 6 semester hours
- Lifelong Learning Track requires 9 semester hours
- Students should consult advisor regarding course options.

Education Track 6 hrs

- EDF 2130 Child and Adolescent Development for Educators 3 hrs
- MAC 2311C Calculus with Analytic Geometry I GEP
- STA 2023 Statistical Methods I GEP
- MAC 2312 Calculus with Analytic Geometry II CPP
- MAC 2313 Calculus with Analytic Geometry III CPP
- MAP 2302 Ordinary Differential Equations I 3 hrs

Select 1:
- Prefer EDF 2005 Introduction to the Teaching Profession 3 hrs
- Prefer EDF 2085 Introduction to Diversity for Educators 3 hrs
- Prefer MHS 2330 Career Planning 3 hrs

Lifelong Learning Track 9 hrs

- MAC 2311C Calculus with Analytic Geometry I GEP
- STA 2023 Statistical Methods I GEP
- MAC 2312 Calculus with Analytic Geometry II CPP
- MAC 2313 Calculus with Analytic Geometry III CPP
- MAP 2302 Ordinary Differential Equations I 3 hrs
- MHS 2330 Career Planning 3 hrs

Select 1:
- Prefer EDF 2130 Child and Adolescent Development for Educators 3 hrs
- Prefer EDF 2270 Adult Development and Learning 3 hrs

4. Core Requirements: Advanced Level (57 hrs)

- Education Track requires 60 semester hours
- Lifelong Learning Track requires 57 semester hours

Education Core Requirements 18 hrs

- Education Track requires 18 semester hours of Education Core Requirements
- Lifelong Learning Track requires 21 semester hours of Education Core Requirements

1 Prerequisite to Internship I

EDG 4410 Teaching Strategies and Classroom Management 3 hrs
- EDF 4467 Learning Theory and Assessment 3 hrs
- EDF 4603 Analysis and Application of Ethical, Legal, and Safety Issues in Schools 3 hrs
- TSL 4080 Theory and Practice of Teaching ESOL 3 hrs
- EEX 4242 Teaching Exceptional Students in Secondary Settings 3 hrs
- RED 4043 Content Reading in Kindergarten through Grade 12 3 hrs

Lifelong Learning Track: 3 hrs

- MAE 4634 Programs in the Teaching of Mathematics 3 hrs

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### Education Track Specialization Requirements 23 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAS 3105</td>
<td>Matrix and Linear Algebra</td>
<td>4 hrs</td>
</tr>
<tr>
<td>MAS 3203</td>
<td>Introduction to Number Theory</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MATH 3302</td>
<td>Logic and Proof in Mathematics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MTG 4212</td>
<td>Modern Geometries</td>
<td>4 hrs</td>
</tr>
<tr>
<td>STA 4163</td>
<td>Statistical Methods II</td>
<td>3 hrs</td>
</tr>
<tr>
<td>(1^{st}) MAE 4634</td>
<td>Programs in Teaching of Mathematics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>(1^{st}) MAE 3366</td>
<td>Middle and High School Mathematics for Teaching</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

\(1^{st}\) Prerequisite to Internship I

### Internship I Block 7 hrs

- Prior to Internship I, the student must have completed EDG 4410 and at least 50% of all required mathematics courses including MAE 3366 Middle and High School Mathematics for Teaching. MAE 4634 Programs in Teaching of Mathematics and MAP 2302 Differential Equations with a minimum grade of "C-" (1.75) or better. However, a minimum GPA of 2.5 is required in the professional, specialization and overall for admission to Internship I.
- Passing score on the General Knowledge Test portion of the Florida Teacher Certification Examination (FTCE) is required before application to Internship I.

### Internship II Block 12 hrs

- At least 80% of all required mathematics courses and all methods courses must be completed with a letter grade of "C-" (1.75) or better before registering for Internship II. However, a minimum GPA of 2.5 is required in the professional, specialization and overall for admission to Internship II.
- Passing scores on all sections [General Knowledge, Professional, and Subject Area (Mathematics 6-12)] of the Florida Teacher Certification Examination (FTCE) are required prior to entry into Internship II.
- Students must apply and be approved for Internship II. Deadline dates and applications are available through the Office of Clinical Experiences at [http://www.education.ucf.edu/clinicalexp/](http://www.education.ucf.edu/clinicalexp/).

### Lifelong Learning Track Specialization 36 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE 4360</td>
<td>Mathematics Instructional Analysis</td>
<td>4 hrs</td>
</tr>
<tr>
<td>MAS 3105</td>
<td>Matrix and Linear Algebra</td>
<td>4 hrs</td>
</tr>
<tr>
<td>MAS 3203</td>
<td>Introduction to Number Theory</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MATH 3302</td>
<td>Logic and Proof in Mathematics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MTG 4212</td>
<td>Modern Geometries</td>
<td>4 hrs</td>
</tr>
<tr>
<td>STA 4163</td>
<td>Statistical Methods II</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HFT 1000</td>
<td>Introduction to the Hospitality and Tourism Industry</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HFT 2750</td>
<td>The Event Industry</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECT 4184</td>
<td>Curriculum Development Techniques for Industry Training</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HFT 3798</td>
<td>Fairs and Festivals</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HFT 4754</td>
<td>Exhibit and Trade Show Operations</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

### 5. Restricted Electives

- None

### 6. Capstone Requirements

- None

### 7. Foreign Language Requirements

**Admissions**

- State University System foreign language admission requirement: two years in high school or one year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

**Graduation**

- None

### 8. Electives

- None

### 9. Additional Requirements

- None

### 10. Required Minors

- None

### 11. Departmental Exit Requirements

- Achieve a minimum 2.5 GPA in all courses within the major.
- In courses throughout the program, you must upload key assignments into your LiveText Dashboard. These key assignments are then assessed by faculty. The resulting data provides evidence of your demonstrated professional growth, reflection, and proficiency in all Florida Educator Accomplished Practices. All teacher education candidates, lifelong learning majors and early childhood and development and education majors (all ECDE tracks) are required to complete all LiveText requirements in order to be cleared for graduation. [http://livetext.education.ucf.edu/](http://livetext.education.ucf.edu/)
Education Track
- Pass all applicable sections of the Florida Teacher Certification Examination. See [http://www.fldoe.org](http://www.fldoe.org) for test dates and test sites. Effective January 1, 2015, only examination results earned by educators within 10 years prior to the date of application for a new Florida Educator’s Certificate with the Florida Department of Education may be acceptable for certification eligibility requirements (SBE Rule 6A-4.002).

12. University Minimum Exit Requirements
- A 2.0 UCF GPA
- 60 semester hours earned after CLEP awarded
- 48 semester hours of upper division credit completed
- 30 of the last 39 hours of course work must be completed in residency at UCF.
- A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted.
- Complete the General Education Program, the Gordon Rule, and nine hours of Summer credit.

Total Semester Hours Required
- 120

Honors In Major
- None

Related Programs
- None

Certificates
- None

Related Minors
- None

Advising Notes
- None

Transfer Notes
- None

Acceptable Substitutes for Transfer Courses
- None

Plan of Study (120 hrs)

<table>
<thead>
<tr>
<th>Freshman Year - Fall</th>
<th>13 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MAC 2311C</td>
<td>4 hrs</td>
</tr>
<tr>
<td>PSC 1121</td>
<td>3 hrs</td>
</tr>
<tr>
<td>GEP B1 Elective</td>
<td>3 hrs</td>
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</table>

<table>
<thead>
<tr>
<th>Freshman Year - Spring</th>
<th>16 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1102</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MAC 2312</td>
<td>4 hrs</td>
</tr>
<tr>
<td>SPC 1608</td>
<td>3 hrs</td>
</tr>
<tr>
<td>GEP B3 Elective (Pref)</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

Select 1:
- ANL 2511 The Human Species or 3 hrs
- BSC 1005 Biological Principles or 3 hrs

<table>
<thead>
<tr>
<th>Freshman Year - Summer</th>
<th>10 hrs</th>
</tr>
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<tbody>
<tr>
<td>MAC 2313</td>
<td>4 hrs</td>
</tr>
<tr>
<td>PSY 2012</td>
<td>3 hrs</td>
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</table>

Select 1:
- MUL 2110 Enjoyment of Music or 3 hrs
- THE 2000 Theatre Survey or 3 hrs
- PHI 2010 Introduction to Philosophy or 3 hrs

<table>
<thead>
<tr>
<th>Sophomore Year - Fall</th>
<th>15 hrs</th>
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<tbody>
<tr>
<td>EDF 2005</td>
<td>3 hrs</td>
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<tr>
<td>MAP 2302</td>
<td>3 hrs</td>
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<tr>
<td>POS 2041</td>
<td>3 hrs</td>
</tr>
<tr>
<td>STA 2023</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

Education Track
- MHF 3302 Logic and Proof in Mathematics or 3 hrs

Lifelong Learning Track
- Choose Lifelong Learning Specialization course or 3 hrs

Sophomore Year - Spring
- 16 hrs

<table>
<thead>
<tr>
<th>Education Track</th>
<th>10 hrs</th>
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<td>MAS 3105</td>
<td>4 hrs</td>
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<tr>
<td>MAS 3203</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDF 2130</td>
<td>3 hrs</td>
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</tbody>
</table>

Lifelong Learning Track
- MHS 2330 Career Planning and 3 hrs
- Choose Lifelong Learning Specialization course or 4 hrs

Select 1:
- EDF 2130 Child and Adolescent Development for Educators or 3 hrs
- EDP 2270 Adult Development & Learning or 3 hrs

Junior Year - Fall
- 12 hrs

<table>
<thead>
<tr>
<th>Education Track</th>
<th>3 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA 4163</td>
<td>3 hrs</td>
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</tbody>
</table>

Lifelong Learning Track
- Choose Lifelong Learning Specialization course or 3 hrs

Junior Year - Spring
- 12 hrs

<table>
<thead>
<tr>
<th>Education Track</th>
<th>3 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 4407</td>
<td>3 hrs</td>
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Select 1:
- EDG 4410 Teaching Strategies and Classroom Management or 3 hrs
- EEX 4242 Teaching Exceptional Students in Secondary Settings or 3 hrs

Education Track
- MAE 3366 Middle and High School Mathematics for Teaching or 3 hrs

Lifelong Learning Track
- Choose Lifelong Learning Specialization course or 3 hrs

Senior Year - Fall
- 14 hrs

<table>
<thead>
<tr>
<th>Education Track</th>
<th>12 hrs</th>
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</thead>
<tbody>
<tr>
<td>MAE 4634</td>
<td>4 hrs</td>
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<tr>
<td>TSL 4080</td>
<td>3 hrs</td>
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</table>

Select 1:
- MAE 3366 Middle and High School Mathematics for Teaching or 3 hrs
- EDP 2270 Adult Development & Learning or 3 hrs

Education Track
- MAE 4634 Mathematics Instructional Analysis or 4 hrs
- MAE 3940 Internship or 3 hrs

Lifelong Learning Track
- Choose Lifelong Learning Specialization courses or 11 hrs

Senior Year - Spring
- 12 hrs

<table>
<thead>
<tr>
<th>Education Track</th>
<th>11 hrs</th>
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</thead>
<tbody>
<tr>
<td>MAE 4941</td>
<td>9 hrs</td>
</tr>
<tr>
<td>ESE 4033C</td>
<td>3 hrs</td>
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</table>

Select 1:
- MAE 3940 Internship or 3 hrs
- ESE 4033C Critical Issues and Trends in Secondary Education or 3 hrs

Education Track
- MAE 4941 Internship and 3 hrs

Lifelong Learning Track
- Choose Lifelong Learning Specialization courses or 12 hrs

Program Academic Learning Compacts
- Program Academic Learning Compacts (student learning outcomes) for undergraduate programs are located at: [http://www.o eas.ucf.edu/alc/academic_learning_compacts.htm](http://www.o eas.ucf.edu/alc/academic_learning_compacts.htm)

Equipment Fees
- Part-Time Student: $12 per term
- Full-Time Student: $24 per term

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